

**Draft Policy Option #TLU-1: California GHG Emission Standards and LEV-2 Standards for Light-duty Vehicles**

*Includes these options from the Policy Matrix:*

- (1.1.1) California GHG Emission Standards*
- (1.1.2) California LEV-2 Emission Standards*

**1. Policy Description:**

- a. Lay description of proposed policy action: In 2005, the California Air Resources Board (CARB) finalized regulations to reduce greenhouse gas emissions from new light-duty motor vehicles that became operative. These regulations have been incorporated into California's Low Emission Vehicle standards which cover criteria air pollutants (known as "LEV II" standards). CARB intends these regulations to apply to new passenger vehicles and light duty trucks beginning with the 2009 model year grow tighter over a phase-in period lasting until 2016. The regulations incorporate a CO<sub>2</sub>-equivalent fleet average emission requirement for two categories of vehicles:
  - PC/LDT1: the standard for passenger cars/light-duty trucks (0 – 3,750 lb loaded vehicle weight) in 2009 is 323 grams per mile and is reduced to 205 grams per mile by the 2016 model year.
  - LTD2: standards for heavier light-duty trucks (3,751 lb loaded vehicle weight – 8,500 lb gross vehicle weight) in 2009 is 439 grams per mile and is reduced to 332 grams per mile by the 2016 model year.

The phase-in schedule is available at [www.arb.ca.gov/regact/grnhsgas/uid.pdf](http://www.arb.ca.gov/regact/grnhsgas/uid.pdf).

Nine other states are planning on adopting the California standards. The auto industry has filed a lawsuit to prevent the GHG standards from taking effect, arguing that they violate federal law. The court case is pending.

- b. Policy Design Parameters:
  - i. Implementation level(s) beyond BAU: The implementation level of this program cannot be varied. Either the State continues to follow the Federal emission standards (BAU) or the State can adopt the California emission standards. The federal emission standards do not contain an emission standard for greenhouse gases.
  - ii. Timing of implementation: Section 177 of the Clean Air Act requires that States adopting California's emission standards must provide automobile manufacturers with a two year lead time to transition from the Federal emission standards to the California emission standards. Thus, if this regulation were to be adopted by Arizona during 2007, the California emission standards would first be required in Arizona for the 2010 model year. Note that Arizona would be on the same implementation schedule as

California, such that all vehicles subject to the California emission standards would meet the same fleet average emission requirements in a given model year, regardless of the first year of adoption.

- iii. Implementing parties: This measure would need to be implemented by the Arizona State DEQ and/or legislature. *[need ADEQ input]*

c. Implementation Mechanism(s): Indicate which mechanisms are to be used, and describe the specific approach that is proposed:

The mechanism for this option falls in the category of a “code or standard.” The California emission standards could be adopted by Arizona under the authority granted by section 177 of the Clean Air Act. Typically, this would occur legislatively or administratively by reference to the specific California regulations. The regulations may be adopted only by and for the entire State, not by specific areas or counties within the State.

2. BAU Policies/Programs, if applicable:

New vehicles sold in Arizona are currently subject to the Federal CAA emission standards. These emission standards do not regulate GHG emissions. CO<sub>2</sub> emissions are indirectly limited through the Corporate Average Fuel Economy (CAFÉ) standards. The CAFÉ standard for passenger cars has remained at 27.5 mpg since 1985; the standard for light trucks has increased slightly over the years and is currently at 21.6 mpg. However, the average fuel economy for new light duty vehicles peaked in 1987. A gradual shift in new vehicle sales from cars to light trucks (including SUVs and minivans) has caused this decrease.

3. Types(s) of GHG Benefit(s):

The CO<sub>2</sub>-equivalent emission standards were designed to reduce CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions that occur during vehicle operation; CO<sub>2</sub> emissions resulting from operating the air conditioning system; HFC refrigerant emissions from the air conditioning system that occur due to leakage, recharging, or vehicle scrappage; and upstream emissions associated with the production of the fuel used by the vehicle.

4. Types of Ancillary Benefits and or Costs, if applicable:

If Arizona adopts the California greenhouse gas emission standards, the State must adopt the entire package of California emission standards. This includes the California LEV II emission standards. The LEV II standards could reduce emissions of criteria pollutants and air toxics *[can appear in chart under #5 below]*. In addition, California is considering a Phase II to the greenhouse gas standards, which would take effect in the 2017 model year, and would likely bring further reductions in greenhouse gas emissions.

The price of new vehicles will likely increase in order to meet the California emission standards, and drivers will experience reduced fuel costs. However, CARB and the auto industry differ sharply on the amount of the price increase, and the extent to which fuel savings would offset the increased price of a vehicle.

5. Estimated GHG Savings and Costs Per MMTCO<sub>2</sub>e:

- a. Summary Table of:
  - i. GHG potential in 2012, 2020, 2050
  - ii. Net Cost per MMTCO<sub>2</sub>e in 2012, 2020, 2050
- b. Insert Excel Worksheet showing summary GHG reduction potential and net cost

6. Data Sources, Methods and Assumptions:

- a. Data Sources
- b. Quantification Methods
- c. Key Assumptions

7. Key Uncertainties if applicable:

- a. Benefits
- b. Costs

8. Description of Ancillary Benefits and Costs, if applicable:

- a. Description of issue #1
- b. Description issue #2
- c. Etc.

9. Description of Feasibility Issues, if applicable:

- a. Description of issue #1
- b. Description of issue #2
- c. Etc.

10. Status of Group Approval:

- a. Pending

- b. Completed

11. Level of Group Support:

- a. Unanimous Consent
- b. Supermajority
- c. Majority
- d. Minority

12. Barriers to consensus, if applicable (less than unanimous consent):

- a. Description of barrier #1
- b. Description of barrier #2